REMARKS

(1)   Claims 1-7 are pending in this application.

(2)   Claim 1 is independent.

(3)   Claim 1 is amended hereby.

Rejection under 35 USC §112, second paragraph

(1)   In the Office Action of August 28, 2008, the Examiner has rejected claims 1-7 under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The Examiner's specific discussion of the rejection is limited to claim 1; claims 2-7 depend therefrom.

The applicant respectfully thanks the Examiner for suggesting how elements (c) and (d) of claim 1 could be clarified by amendment. The applicant has made amendment to claim 1 in accordance with the suggestion of the Examiner.

(2)   Based on the amendment made herein above, the applicant respectfully submits that they have overcome the Examiner's rejection of claims 1-7 under 35 USC §112, second paragraph, as being indefinite.

Rejection under 35 USC §103(a)

(1)   In the present Office Action, the Examiner has rejected claims 1 to 3 and 7 under 35 USC §103(a) as being unpatentable over U.S. Patent No. 7,136,418 for Scalable And Perceptually Ranked Signal Coding And Decoding, issued November 14, 2006, to Atlas et al. (hereinafter referred to as "*Atlas*") in view of U.S. Patent No. 5,253,326 for a Prioritization Method And

Device For Speech Frames Coded By A Linear Predictive Order, issued October 12, 1993, to Yong (hereinafter referred to as "*Yong*").

(2)   The Applicant respectfully incorporates herein the Remarks made in response to the previous Office Action.

(3)   In making the rejection under *Atlas* in view of *Yong*, the Examiner has stated that:

> Concerning independent claim 1, *Atlas et al.* discloses a method for multiple resolution scalable audio coding, comprising: ... assigning a priority to each group of the plurality of field groups, the priority of one group over another group becoming greater based upon the selection of one or more of the following functions: (i) the greater the amplitudes of the group's values and/or (ii) the greater the amplitude differences of the values of a group and/or (iii) the closer the group is to the current time – matrices are quantized and priority ordered into a data packet, with the least perceptually relevant information at the end of the packet (Abstract); coefficients of the quantized matrices are prioritized based on the spectral frequency and modulation frequency (column 3, lines 40-44); implicitly, a modulation frequency represents a change, or modulation, of an amplitude of a frequency component from frame to frame ('the greater the amplitude differences'); ... (Office Action at p. 4)

Additionally, in responding to the Applicant's previous Remarks, the Examiner has stated that:

> It is not clear what Applicant is attempting to show by the analogy to an automobile race, except that there may be different non-analagous varieties of prioritization. However, it is maintained that the prioritization of Atlas et al. is directed [to] the same purpose as that disclosed by the Applicant. Atlas et al. prioritizes data packets in accordance with perceptual significance, so that if packets are subsequently lost, then the most perceptually important packets are transmitted first, and maximum signal quality is achieved without significant losses, thereby achieving scalability. (Office Action at page 12)

The Examiner appears to be stating in the formal rejection that prioritization in *Atlas* is distributed within an individual packet on the basis of the spectral frequency and modulation frequency location of the coefficients of the quantized matrices. Yet, in the Response to the Applicant's Remarks, the Examiner is stating that: "Atlas et al. prioritizes data packets in accordance with perceptual significance, so that if packets are subsequently lost, then the most perceptually important packets are transmitted first." Thus, the Examiner has proposed a moving

standard that is being applied on a hindsight basis. Prioritization within *Atlas* is not based on one packet over another; but, rather is based on prioritization within the packet. Indeed, *Atlas* teaches that: "The prioritized coefficients are then encoded into the data packet in priority order, so that the most perceptually relevant coefficients are adjacent to the beginning of the data packet and the least perceptually relevant coefficients are adjacent to an end of the data packet" (*Atlas* at col. 3, lines 41-49).

Further, *Atlas* teaches that: "Because the important data is placed at the beginning of the data packet, transmission of the information in a single packet can simply be terminated as necessary to accommodate the target data rate ..." (*Atlas* at col. 7, lines 59-62). Thus, packets transmitted within the *Atlas* prioritization scheme are essentially groups of packet subsets that can be truncated based upon a pre-determined data rate. This is not the prioritization scheme within the Applicant's claimed invention, wherein: "The values of the individual groups are received in the receiver according to the above described prioritization parameters (amplitude, closeness of position in time and amplitude differences from adjacent values)" (Spec. at page 4, lines 18-20). There is no truncation based on elimination of subsets.

Additionally, the Examiner, in the Office Action at page 6, has stated that:

> ... the only elements not clearly disclosed by *Atlas et al.* are 'combining each field of the multiplicity of fields into a field group' and 'forming a plurality of field groups from each individual field and at least two fields of the array adjacent to the individual field'. *Atlas et al.* suggests that fields may be combined into field groups because MSD function coefficients ('fields') may be extracted from frequency groups approximately representing the critical band structure of the human auditory system. (Column 6, lines 35-39)

The applicant respectfully asserts that the Examiner has misapplied the teachings of *Atlas*, in that the description of the weighting factors, cited by the Examiner above, were supplemented in *Atlas* by the teaching that: "The first perceptual model is used to compute accurate weighting factors from the MSD function coefficients. ... The quantized weighting factors are encoded into the data packet for later use in decoding." (*Atlas* at col. 6, lines 28-29 and 49-50) The importance of this distinction is that not only does *Atlas* not teach 'combining

the fields used for the calculating of priority value into a field group"; but, there is no teaching nor suggestion that the groups of the applicant are, or should be, formed by including adjacent arrays, Further, the Examiner's statement that coefficients are the same as fields belies the Examiner's earlier statement that the coefficients are also prioritized by their nature. If that were so, then the prioritization of the group would be equal to the prioritization of an individual coefficient. In fact, the priority of the applicant's "groups" is determined by one or more criteria applied to the group, not to its components individually.

With respect to **Yong**, the Examiner has stated (Office Action at pages 6-7) that:

> Yong teaches a prioritization method and device for speech frames coded by a linear predictive coder, where a priority is assigned to a selected speech frame based on at least an energy ('amplitude') of the speech frame. (Abstract). A priority is assigned to each selected speech frame that protects against loss of perceptually important and/or hard-to-reconstruct speech frames based on a comparison of priorities assigned to selected immediately previous speech frames (Column 3, lines 43-57).

The Examiner appears to be making the inference that prioritizing components is the same as prioritizing the group. This misapplication continues with the Examiner's further statement that: "Yong provides for 'combining each field ... into a field group' and 'forming a plurality of field groups ... from at least two fields of the array adjacent' because assigning of priority is based on a current speech frame (CSF) and one or more immediately preceding speech frames (IPSF) (Column 2, lines 35-59: Figure 2)".

The Applicant respectfully submits that **Yong**, at column 2, lines 33-39, teaches that:

> A device and method include prioritization assignment of speech frames coded by a linear predictive speech coder in a packet-switched communications network. The device incorporates units for, and the method includes the steps for, substantially assigning a priority to each of selected speech frames of digitized speech samples generated by a linear predictive speech coder in a packet switched communications network.

There is no teaching, nor suggestion, in the Examiner's selected citation that: "*Yong* provides for 'combining each field ... into a field group' and 'forming a plurality of field groups ... from at

least two fields of the array adjacent". Yong's priority "...is based on a current speech frame (CSF) and one or more immediately preceding speech frames (IPSF)." That is not the prioritization of the Applicant's claimed invention. Adjacent fields allow the Applicant to rebuild the signal at the receiver. On the other hand, a linear progression as taught by Yong would not allow the Applicant to rebuild in those instances where the progression is disrupted.

Thus, based on the Remarks herein above, the applicant respectfully submits that there is no teaching nor suggestion that the elements of *Atlas* should be combined with the elements of *Yong*, or any other related prior art, to achieve what the Applicant has achieved. And, indeed, if such combination were to be made, the result would not be the Applicant's claimed invention.

The Applicant respectfully submits that they have traversed the rejection by the Examiner of claims 1 to 3 and 7 under 35 USC §103(a) for being unpatentable over *Atlas* in view of *Yong*.

(4)   In the present Office Action, the Examiner has rejected claims 4-6 under 33 USC §103(a) as being unpatentable over *Atlas* in view of *Yong*, and, further in view of U.S. Patent No. 5,886,276 for a System And Method For MultiResolution Scalable Audio Signal Encoding, issued March 23, 1999, to Levine et al. (hereinafter referred to as *"Levine"*).

In making the rejection of claims 4-6, the Examiner has stated that:

> However, Atlas et al. does disclose a filter bank, which is equivalent to 'a number n of frequency selective filters.' In any event, it is well known that there are a plurality of art recognized alternative ways of transforming a signal into its individual frequency components by Fourier analysis, and that filter banks ('a number n of frequency selective filters') and a Fast Fourier Transform are among the most common alternatives. ... It would have been obvious to one having ordinary skill in the art to substitute art recognized alternatives of an FFT and a number n of frequency selective filters as taught by Levine et al. for the filter bank, MDCT, and MDST of Atlas et al. for a purpose of reducing bandwidth by identifying transient components representing the onset of notes for an audio signal.

The Applicant respectfully submits that the filter bank of *Atlas* "is applied to successive blocks of one-dimensional samples of audio data and provides a 50 percent overlap in time while

maintaining critical sampling" (*Atlas* at col. 8, lines 2-12). The Applicant's "a number n of frequency selective filters", however, is directed toward separating frequencies, not providing a sampling (Spec at page 3, lines 4-16). Thus, there is no reason to look to *Levine* to solve a problem posed by *Atlas* that is not posed by the Applicant's claimed invention.

Additionally, the Applicant respectfully submits that as they have traversed the rejection of the Examiner with respect to independent base claim 1, that claims 4-6 which depend therefrom enjoy the benefits of the parent and are, likewise, allowable at least for the reasons articulated in the Remarks made in section (1) hereinabove.
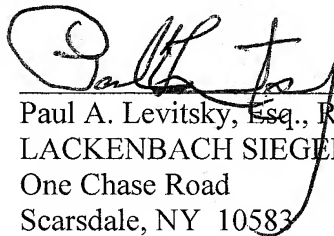
(5)   For the reasons indicated herein above, the Applicant respectfully submits that they have traversed the rejection by the Examiner of claims 1 to 3 and 7 under 35 USC §103(a) for being unpatentable over *Atlas* in view of *Yong*; and, further, that they have traversed the rejection by the Examiner of claims 4-6 under 35 USC §103(a) for being unpatentable over *Atlas* in view of *Yong* and further in view of *Levine*.

Conclusion

(1)   Applicant respectfully submits that claims 1-7 are allowable for at least the reasons noted hereinabove. A Notice of Allowance is therefore respectfully requested hereby.

(2)   The Commissioner is hereby authorized to charge any fees which may be necessary for the consideration of this communication, or any additional fees required during examination of this application, and to credit any overpayment to Deposit Account No. 10-0100 (Attorney Docket No. RIEBL.P-57-MG.

Respectfully submitted,

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        Date

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